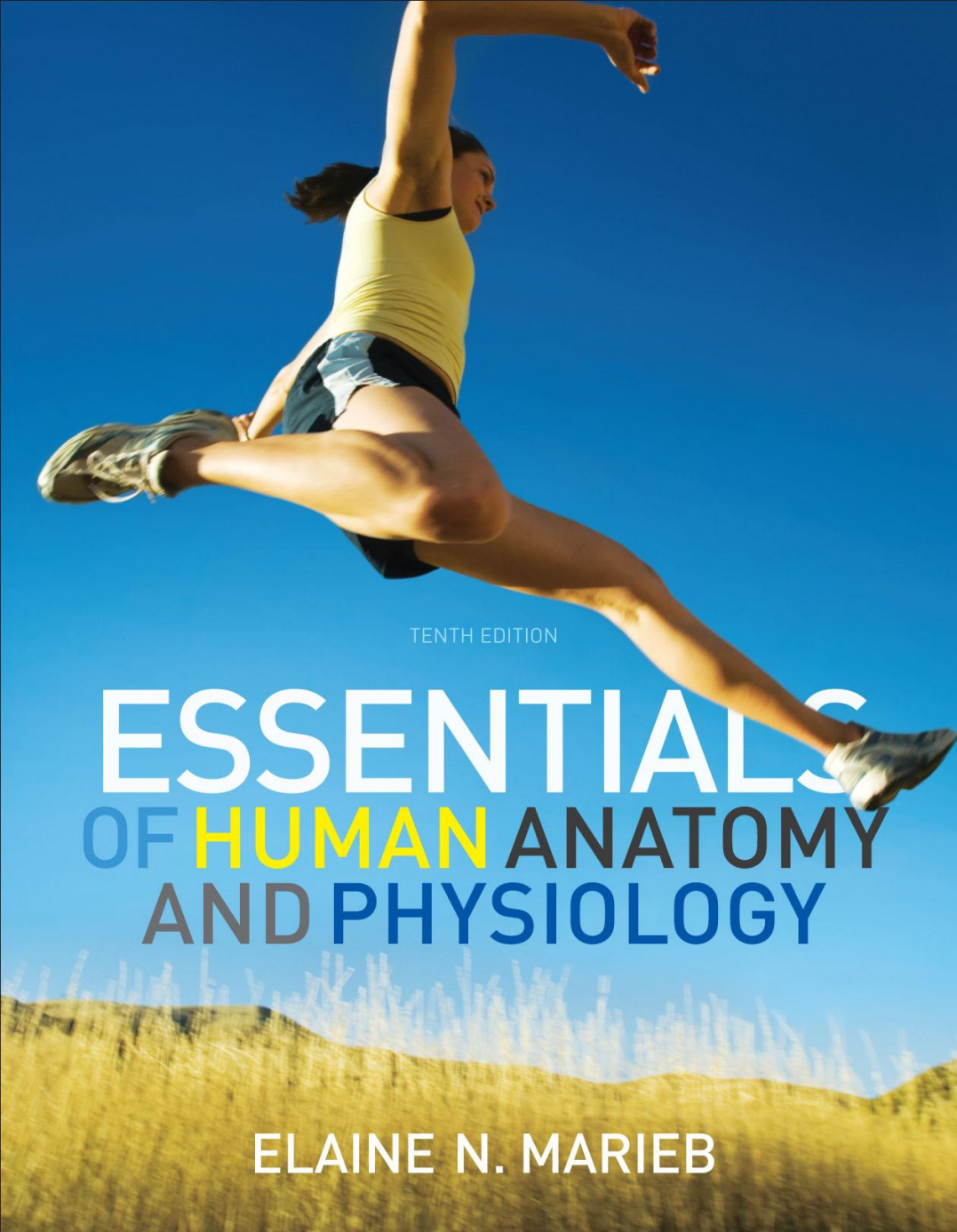


PowerPoint® Lecture Slides

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CHAPTER 11

The Cardiovascular System



TENTH EDITION

ESSENTIALS OF HUMAN ANATOMY AND PHYSIOLOGY

ELAINE N. MARIEB

The Heart: Cardiac Cycle

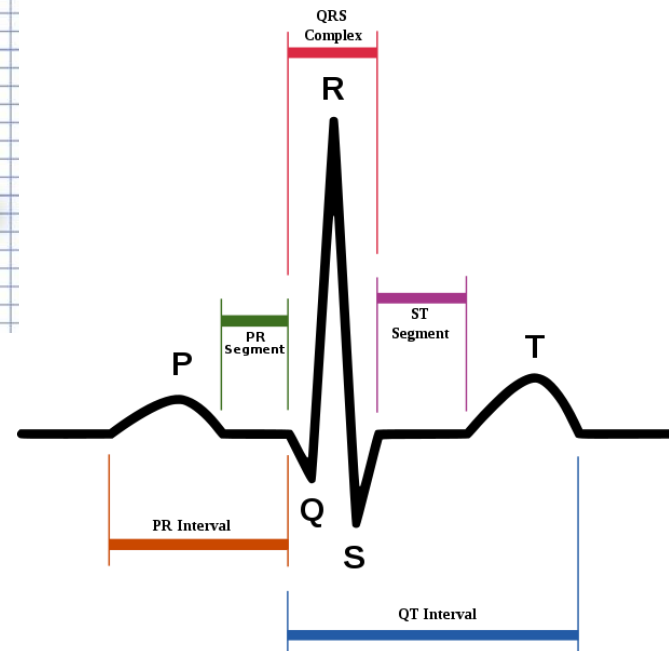
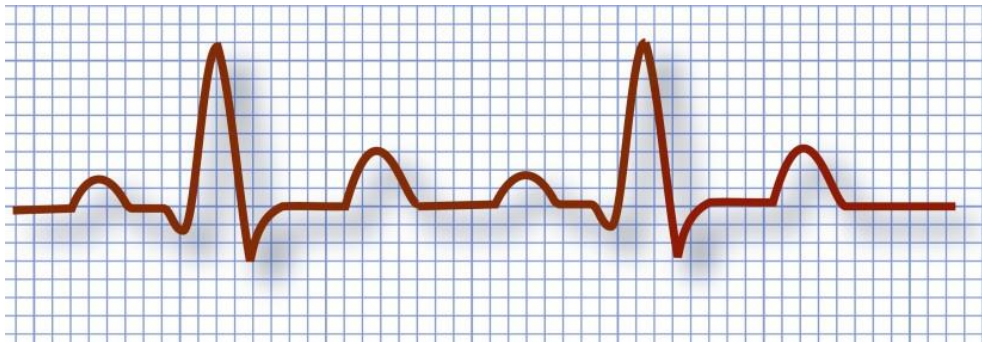
- Cardiac cycle
- <https://www.youtube.com/watch?v=5tUWOF6wEnk>
- <https://www.youtube.com/watch?v=KWrrzdJY4G9Q>
- <https://www.youtube.com/watch?v=xeMEAmwzJVw>
- <https://www.youtube.com/watch?v=T8zkvdkzU7A>

ECG or EKG

- Atria contract and blood moves to the Ventricles
- Ventricles contract and blood moves to the Arteries

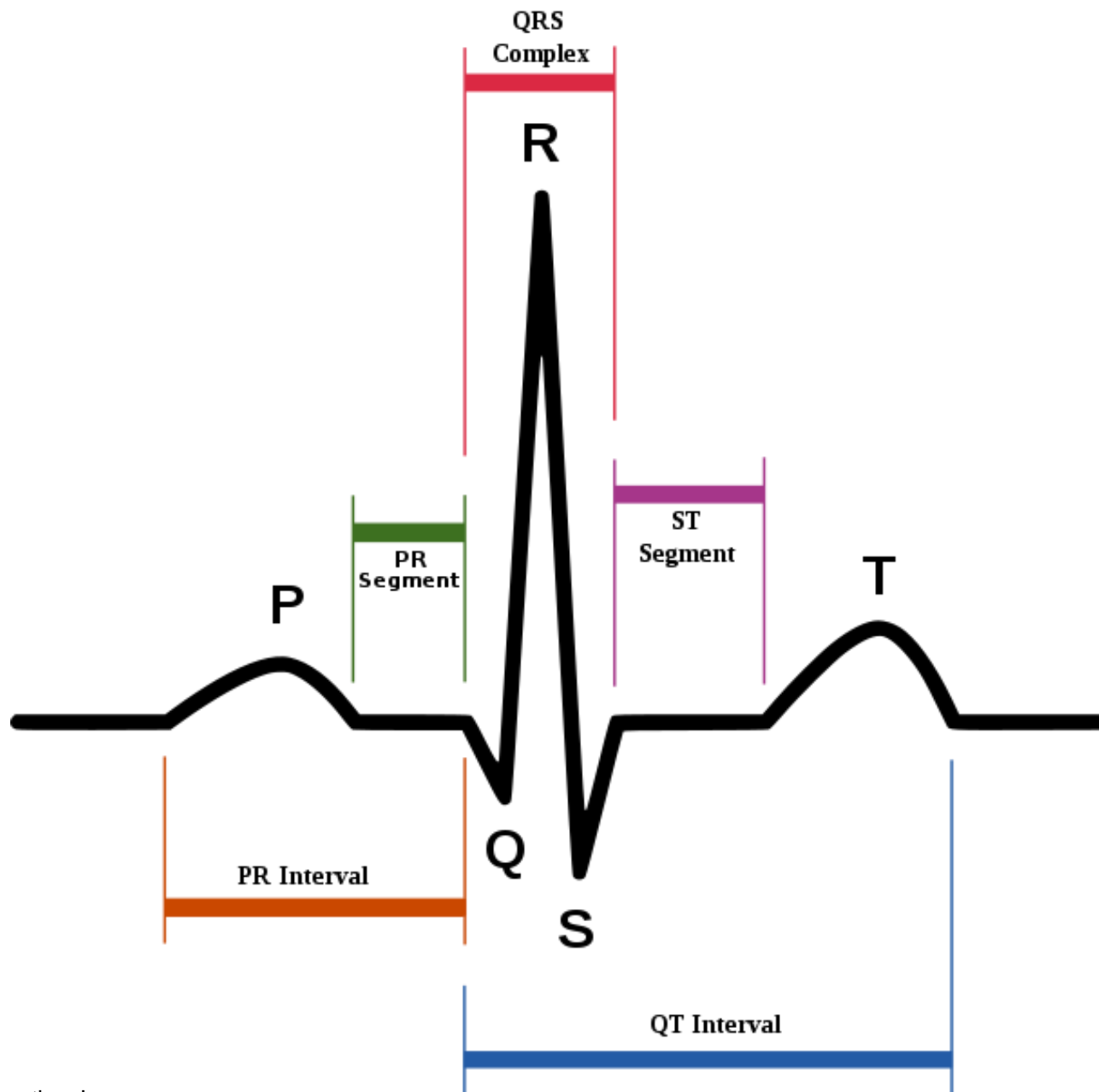
ECG or EKG

- Electrocardiogram
 - Graphical recording of the electrical events occurring within the heart



ECG or EKG

- **P Wave** – start of the electrical journey as the impulse spreads from the SA node downward through the atria through the AV node and to the ventricles – **Atrial contraction (depolarization)**
- **QRS Complex** – Ventricular contraction (depolarization)
 - Atrial repolarization occurs at this time also
- **T Wave** – Ventricular repolarization (recovery of ventricles to resting state)



- **PR Interval:** extends from the beginning of the P wave (the onset of atrial depolarization) until the beginning of the QRS complex (the onset of ventricular depolarization)
- **PR Segment:** Between Atrial and Ventricular depolarization
- **ST Segment:** Period of depolarized ventricles
- **QT Interval:** Time it takes for depolarization and repolarization of ventricles to occur

